

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1055669

Luminaire Tested: S123R3DR-S775D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055669
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S775D927-X4F0-XX-UDD-F-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

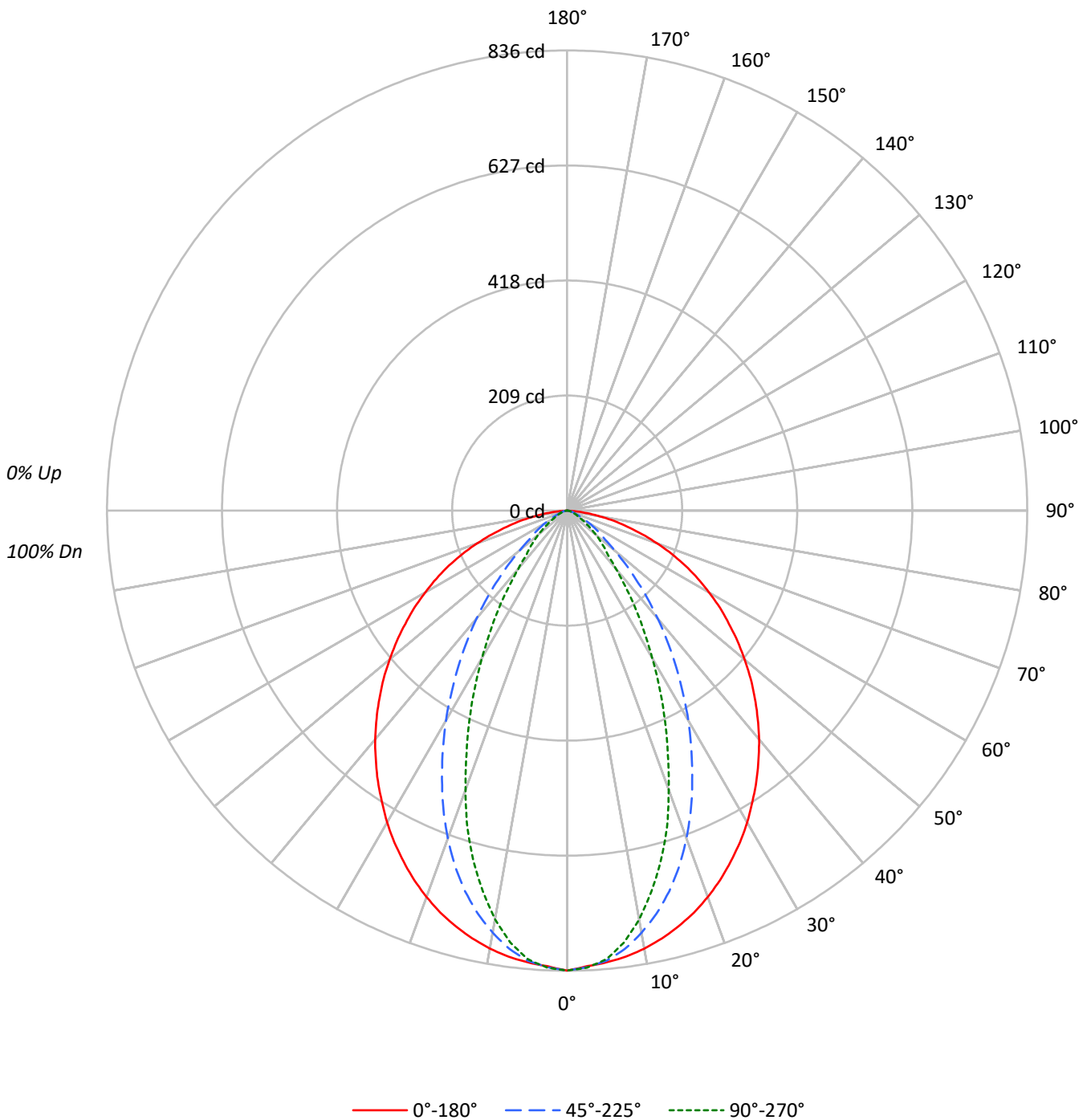
Lumens per Lamp: N/A
Luminaire Lumens: 1162.3 lumens
Efficiency: N/A
Efficacy: 44.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91				89	
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81				79	
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72				70	
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64				62	
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58				56	
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53				51	
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48				46	
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44				42	
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41				39	
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38				36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10076	10076	10076
5°	9971	9932	9903
10°	9892	9533	9233
15°	9759	8938	8217
20°	9584	8130	6922
25°	9358	7156	5586
30°	9109	6132	4302
35°	8826	5060	3184
40°	8540	4027	2169
45°	8225	3013	1635
50°	7889	2095	1277
55°	7544	1532	933
60°	7183	1145	668
65°	6758	767	519
70°	6116	557	419
75°	5278	405	331
80°	4235	333	278
85°	2186	332	221

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8225 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	6.6
10°-20°	201.1	17.3
20°-30°	252.7	21.7
30°-40°	235.3	20.2
40°-50°	180.1	15.5
50°-60°	119.7	10.3
60°-70°	64.5	5.6
70°-80°	26.4	2.3
80°-90°	5.1	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	531.0	45.7
0°-40°	766.3	65.9
0°-60°	1066.2	91.7
0°-90°	1162.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1162.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	824	833	821	818	818	78
15°	782	769	716	674	658	220
25°	704	656	538	448	420	324
35°	600	511	344	243	216	375
45°	482	356	177	104	96	372
55°	359	208	73	51	44	322
65°	237	80	27	20	18	234
75°	113	19	9	8	7	121
85°	16	2	2	2	2	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	835.7	835.7	835.7	835.7	835.7
2.5°	828.6	838.9	830.2	831.0	831.0
5°	823.9	832.6	820.7	817.5	818.3
7.5°	817.5	823.1	803.3	793.0	791.4
10°	808.0	809.6	778.7	760.5	754.2
12.5°	796.1	790.6	750.2	720.1	708.2
15°	781.9	769.2	716.1	674.1	658.3
17.5°	766.0	744.6	677.3	622.7	603.6
20°	747.0	716.9	633.7	565.6	539.5
22.5°	726.4	687.6	587.8	507.0	477.7
25°	703.5	655.9	537.9	448.4	419.9
27.5°	679.7	621.9	488.8	392.9	363.6
30°	654.3	587.0	440.5	339.1	309.0
32.5°	626.6	549.0	390.5	289.1	259.0
35°	599.7	511.0	343.8	243.2	216.3
37.5°	571.2	472.9	298.7	202.8	172.7
40°	542.6	434.1	255.9	163.2	137.8
42.5°	512.5	395.3	215.5	129.9	110.1
45°	482.4	356.5	176.7	103.8	95.9
47.5°	452.3	317.7	142.6	89.5	81.6
50°	420.6	280.4	111.7	76.0	68.1
52.5°	390.5	243.2	87.1	62.6	55.5
55°	358.9	207.6	72.9	50.7	44.4
57.5°	329.5	171.1	60.2	39.6	34.9
60°	297.9	138.6	47.5	30.9	27.7
62.5°	267.8	108.5	36.4	24.6	22.2
65°	236.9	80.0	26.9	19.8	18.2
67.5°	206.0	57.8	20.6	15.8	15.1
70°	173.5	43.6	15.8	12.7	11.9
72.5°	142.6	30.9	11.9	10.3	9.5
75°	113.3	19.0	8.7	7.9	7.1
77.5°	87.1	11.1	6.3	6.3	5.5
80°	61.0	6.3	4.8	4.8	4.0
82.5°	37.2	4.0	3.2	3.2	3.2
85°	15.8	2.4	2.4	2.4	1.6
87.5°	2.4	0.8	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.84	19.19	18.20	19.51	19.82	6.41	7.77	6.78	8.08	8.40
	3H	19.59	20.80	19.97	21.13	21.49	7.08	8.28	7.46	8.61	8.98
	4H	20.29	21.42	20.69	21.77	22.15	7.27	8.40	7.67	8.75	9.13
	6H	20.81	21.84	21.22	22.21	22.60	7.39	8.43	7.81	8.80	9.19
	8H	20.94	21.92	21.37	22.32	22.72	7.43	8.41	7.86	8.80	9.20
	12H	21.00	21.93	21.43	22.31	22.74	7.44	8.38	7.87	8.76	9.19
4H	2H	17.65	18.77	18.05	19.12	19.50	6.97	8.09	7.37	8.44	8.82
	3H	19.44	20.36	19.85	20.76	21.17	7.77	8.69	8.18	9.09	9.49
	4H	20.13	20.96	20.57	21.38	21.82	8.02	8.85	8.46	9.27	9.71
	6H	20.70	21.42	21.17	21.86	22.33	8.22	8.93	8.68	9.38	9.84
	8H	20.88	21.54	21.35	21.99	22.46	8.28	8.94	8.75	9.39	9.86
	12H	20.97	21.55	21.45	22.03	22.51	8.31	8.90	8.80	9.38	9.85
8H	4H	20.01	20.67	20.48	21.12	21.59	8.34	9.00	8.81	9.45	9.92
	6H	20.57	21.11	21.07	21.60	22.08	8.59	9.13	9.09	9.62	10.10
	8H	20.74	21.23	21.26	21.74	22.23	8.68	9.16	9.20	9.68	10.17
	12H	20.85	21.27	21.36	21.77	22.34	8.76	9.19	9.27	9.68	10.25
12H	4H	19.97	20.55	20.45	21.04	21.51	8.38	8.97	8.87	9.45	9.92
	6H	20.51	20.99	21.03	21.51	22.00	8.63	9.12	9.15	9.63	10.12
	8H	20.70	21.13	21.22	21.62	22.19	8.76	9.19	9.28	9.69	10.26